IN THE UNITED STATES PATENT & TRADEMARK OFFICE

Appl. No	:	09/985,673	Confirmation No. 4016
Applicant	:	Moyes	
Filed	:	November 5, 2001	
TC/A.U.	:	3635	
Examiner	:	Nguyen	
Docket No	:	6240.241	
Customer No	:		

Commissioner of Patents
P.O. Box 1450
Alexandria, VA 22313-1450

February 5, 2010

REQUEST FOR REHEARING IN RESPONSE TO DECISION BY BOARD PURSUANT TO 37 C.F.R. 41.52(a)(1)

Sir:

In accord with 37 CFR 41.52(a)(1), Applicant respectfully requests a Board rehearing owing to the misapprehension by the Board of the primary reference to Hansen advanced by the Board under 35 USC 102 and alternatively under 35 USC 103 to reject Claims 18 and 33. These claims are included in an Appendix herewith.

The crux of the Board's new ground of rejection: The method of making the door skin in the primary reference to Hansen is "substantially identical" to the method describes in Applicant's specification. As such, the Hansen method would likely yield, with no more than routine experimentation, a door skin having a similar bonding strength as that claimed by applicant; to wit, at least about 2.0 N/mm^2. The Board's conclusions regarding Hansen are not well founded and are based on a mis-apprehension of the Hansen reference. As will be shown below, the resulting strength in Hansen can be no greater than the strength found in the starting material blank used in Applicant's method. Hence, the Board's rejection should be withdrawn.

In the Decision dated December 7, 2009, the Board made several Findings of Fact regarding the Hansen disclosure, to wit:

"FF. 11. The Appellant's Specification does not indicate that the steps of applying the conditioning resin or venting the reforming press are critical to producing the bond strengths of at least 2.0 N/mm².

FF. 20. Hansen describes a method for producing the plate members or skins from a base plate 14. The base plate 14 is produced as an only slightly compressed element of wood fiber mass with a urea-based binding agent. (Hansen, col. 3, ll. 25-36). The wood fiber mass is pressed to a thickness of 3-4mm and a bulk density of 400-600 kg/m³. (Hansen, col. 3, ll 25-32 and 41-43).

FF. 21. Hansen discloses producing the base plate 14 with a low degree of heat so that the binding agent is only partially activated and not cured. (Hansen, col. 3, ll. 33-37).

FF. 22. Hansen discloses applying a coating 16 of paper or veneer on both sides of the base plate 14 to form a plate member 2. (Hansen, col. 3, ll. 16-18).

FF. 23. Hansen discloses steaming the plate member 2 for approximately 30 seconds at 100° C immediately before pressing the base plate. (Hansen, col. 3, ll. 44-46). The steaming of the plate member 2 necessarily will preheat and moisturize the plate member.

FF. 24. Hansen discloses pressing or reforming the plate member 2 to form depressed patterns in the plate member or skin. (Hansen, col. 3, l. 60 – col. 4, l. 2).

FF. 25. Hansen discloses pressing and reforming the plate member 2 with a gradual build up of pressure of approximately 20 kg./cm² over a period of approximately two minutes. (Hansen, col. 3, ll. 47-49). Hansen also discloses gradually increasing the temperature of the plate member 2 while pressing or reforming the plate up to an ultimate temperature of approximately 130° C. (Hansen, col. 3, ll. 49-57).

FF. 26. Hansen discloses that the heating and pressing of the plate member 2, while reforming the plate causes the urea-based binder to cure, resulting in a very strong final

product. (Hansen, col. 3, l. 61 – col. 4, l. 2). Hansen's statement implies that one of ordinary skill in the art would have considered increased strength to be a desirable property of a door skin."

Applicant respectfully observes that the foregoing FF's are partially accurate insofar as the text in some of the FF represent direct quotes from the Hansen reference. However, Applicant also observes that the FF's are, in part, also inaccurate, selective, and skip facts that are essential in forming a complete representation of the Hansen process and resulting product. As such, Applicant believes that the Hansen reference, in its totality, has been mis-apprehended by the Board.

With respect to FF. 11. The notion is that the Appellant's spec does not acknowledge the necessary role played in increasing the strength of the final product to the addition of conditioning resin. This is incorrect. At Appellant spec page 10, ll. 5-9, "Surprisingly, it has been found that adding conditioning resins (e.g. melamine....) to solid blank 10 prior to pressing, results in a stronger end product...". In addition, at Appellant spec page 20, ll. 16-20, "In addition, the resin, both the original uncured resin and resin added with the conditioner, begins to react and cure. Curing the resins causes them to harden; thus solidifying the reformed blank 10 into skin 7." FF. 11. is, thus, provably a mis-apprehension of Applicant's specification.

With respect to FF 20 and 21 and what, as to Hansen, can be understood or implied therefrom: The Board decision at page 11, 2nd para., notes that the method set forth in Hansen and the method set forth by Appellant are "substantially identical". Not so and, when read in the context of the language in Hansen immediately following the portions adopted in FF. 20 and 21, a distinctly different understanding of Hansen is obtained.

The Hansen process begins: "The base plate 14 is a special product which will only exceptionally be suitable for other purposes. The plate member is produced as an only slightly compressed element of wood fibre mass or chip mass, e.g. either a very thin chip board or a plate member of the Masonite type, which at the production is pressed to a

bulk density of 400-600 kg/mm³, preferably 500 kg/mm³, while usual chip boards or Masonite plates have a bulk density of 700-800 kg/mm³. Moreover, the plate member is produced with a low degree of heat supply, so that the binding agent in the material, consisting of a heat setting glue, such as a urea or phenol give only partially activated and thus not cured. The result is that the base plate member 14, at least before the veneering, appears as a leather-like bendable plate member. It is somewhat stiffened by the veneering, but still without being hardened. Its thickness can be of appx. 3-4 mm, while the coating layers 16 should not be thicker than apprx. 0,8 mm, e.g. a 0,6 mm veneer." (Hansen, col. 3, ll. 24-43).

It is firstly observed that Hansen begins with a base plate that "will only exceptionally be suitable for other purposes". The Hansen starting "plate" is a, "leather-like bendable plate member". In contrast, the Appellant starts with a, "solid and already pressed flush/flat door blank 10…". (Appellant Spec. page 13, ll. 13-14). The solid flat blank used by appellant has been previsouly molded at 325° F to about 425° F. (Appellant Spec. page 13, para. 2, ll. 19-20.) Appellant's solid flat blank has been cured to the extent only a relatively small fraction (5 – 20 %) of the binder is uncured so as to limit brittleness. (Appellant spec. page 15, ll. 11-12). These differences mark the first insight in to what the Hansen method is and what it is doing is quite different from the method Appellant's specification sets forth. The starting work piece in each method is markedly different. The FF 20 and 21 from the Board decision evidences a mis-apprehension by the Board of the Hansen method. Appellant's starting product is a finished composite blank suitable for various uses, whereas the partially cured starting material in Hansen has utility only in the Hansen process.

Applicant respectfully argues that a "slightly compressed" and "leather like bendable plate member" subject to a "low degree of heat supply" such that the "heating setting glue..give only partially activated and thus not cured" cannot be considered "substantially identical" to a relatively fully heated and cured (80 – 95 % of the resins cured) solid flat blank of MDF as used by Appellant.

With respect to FF 23: Hansen states, "Before the pressing the veneer layers are smoothened, and immediately before the pressing they are steamed for some 30 seconds at 100° C." (Hansen, col. 3, ll. 44-46). The Board decision FF 23, states, "The steaming of the plate member 2 necessarily will preheat and moisturize the plate member." FF. 23 cites the identical passage from Hansen. FF 23 is a miss-statement of the referenced portion of Hansen and, because of the miss-statement, creates the basis for an erroneous conclusion as to what is happening in Hansen. As to pre-heating and/or steaming of the plate 2 in Hansen, it is, in fact, pointedly to be avoided in Hansen. FF 23 is incorrect.

Firstly, Hansen states that it is the "veneers" that are being smoothed out by steam, not the eventually sandwiched plate 2. But, in addition, just a little further on in the Hansen specification, it notes: "Simultaneously, care is taken to heat the plate, through the pressing plates 4 and 6 formed of e.g. aluminium, such that a temperature of some 130.degree. C. or another setting temperature for the binding agents will be achieved sufficiently late for the binding agents not to harden until after the building of the final, pressing pressure, e.g. not until some 30 seconds thereafter, whereby it is ensured that the deformation of the plate is fully accomplished while it is still deformable." (Hansen, cl. 3, ll. 49-58).

The Hansen leather like uncured plate 2, if subject to heat prematurely in the Hansen process, ie., heated while the veneers were being heated as stated in FF 23, would begin the curing of the here-to-fore uncured resins in Hansen and make the plate 2 thereafter potentially undeformable. The Hansen specification notes the "care" that has to be taken so that the resin curing temperature is reached "sufficiently late" in the process so that the Hansen binding agents do not harden and make the Hansen plate unmoldable. Basically, "pre-heating" as noted in FF 23 as "necessarily" occurring in Hansen actually, in fact, needs to be avoided in Hansen. This is a mis-apprehension by the Board. In contrast, the Appellants previously fully heated and cured solid flat plate of MDF has to be re-heated and re-moistened prior to molding (Appellant spec. page 15, ll. 1-19), thereafter the moistened blank has additional resin applied thereon (Appellant spec. page 16, ll. 13-21).

The differences between the respective methods set forth in Appellant's specification and Hansen are marked. The fundamental reasons for these differences are that Hansen starts with a material that has few other uses, i.e., a leather like plate made of mostly uncured, unactivated resin/glue, and wood fibre. In the Hansen process this leather like plate is sandwiched between pre-steamed veneers in order to provide a "stiffened" product (Hansen, col. 3, ll. 39-41) and, thereafter, cured in a pressing operation.

In contrast, the Appellant process starts with a solid flat piece of substantially cured MDF, reheats and remoistens and adds a further resins coating thereto. Appellant's method then forms the door skins by reforming the reheated/remoistened/newly resin coated plate while the wood fibres contained therein flow as it is being finally pressed. (Appellant spec. page 20, ll. 14-16). In the Appellant process, the "original uncured resin and resin added with the conditioner, begins to react and cure. Curing the resins causes them to harden; thus solidifying the reformed blank 10 into skin 7." (Appellant spec. page 20, ll. 16-20). The process set forth in the Appellant's specification results in an article having a door skin with a bonding strength of at least about 2.0 N/mm^2.

Given the substantial differences mis-apprehended in the Board decision vis-à-vis the Hansen method and Appellant's method, it is unreasonable and not well founded by the Board to conclude that Hansen method is capable of producing a door skin having a bonding strength of at least 2.0 N/mm^2. Indeed, Hansen never mentions bond strength. While increasing bonding strength is a feature of the curing process of any door skin from an uncured condition, it is beyond routine experimentation to pluck the result achieved from Appellant's specification, and take a markedly different method as in Hansen to achieve the same outcome. The record in this Appeal sets forth Appellant's understanding, through observation and creation of the method and resulting door skin, that it is the combination of curing resins, e.g., the final curing of the original uncured resin and the curing of the added resin, that creates the final strength of the door skin claimed herein. (Id.) Hansen describes no second step of added resin and only provides a curing of the resins uncured and unactivated in the original leather like plate. Hansen begins the process (Hansen col. 3, ll. 25-33.) with an element of a Masonite type board,

but in uncured form. Hence, the strength upon curing would reasonably be no greater than the starting material (solid cured flat blank of MDF) of Appellant's method. Contrary to the Board's assertion, routine experimentation using Hansen's method could achieve no strength gain beyond an ordinary piece of MDF, because no additional resin is added in the Hansen method. In contrast, as compared with a standard MDF door skin (similar to what strength Hansen might ultimately achieve), the present method approximately doubles the bond strength as disclosed in Applicant's specification. (Appellant spec. 9, ll. 6-16).

In view of the foregoing identified differences between the Hansen method and that set forth by Appellant misapprehended by the Board, and in view of the additional steps that would reasonably be necessary to achieve added bond strength of the door skin, it is beyond the scope of routine experimentation to derive a door skin from Hansen that would have a bonding strength of at least about 2.0 N/mm^2 as claimed in each of claims 18 and 33. Applicant respectfully requests a Board rehearing and retraction of their new grounds of rejection.

Respectfully submitted:

/John M. White/
John M. White, Reg.No.32,634
Acting in a Representative Capacity
Under 37 CFR 1.34
Berenato & White
6550 Rock Spring Drive
Suite 240
Bethesda, MD 20817
Ph 301 896 0600
Email: jwhite@bwsiplaw.com

Appendix of Claims Subject to Request for Rehearing:

18. A hollow core door comprising:

a door frame; and

first and second door skins attached to said door frame so as to define a hollow core area there between, at least one of said skins being a reformed molded wood composite door skin having molded therein a plurality of panels,

wherein said at least one door skin has a bond strength of at least about 2.0 N/mm^2.

33. A hollow core door comprising:

a door frame having opposite first and second sides;

a first door skin attached to said first side of said door frame, said first door skin comprising a first reformed molded wood composite having a plurality of panels and a bond strength of at least about 2.0 N/mm^2; and

a second door skin attached to said second side of said door frame to establish a hollow core area between said first and second door skins, said second door skin comprising a second reformed molded wood composite having a plurality of panels and a bond strength of at least about 2.0 N/mm^2.